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ABSTRACT

The Academic Internship Program (AIP), an experiential education program in the Charlotte-Mecklenburg high schools, is described in this paper. The program utilizes one-on-one and group internships to apply academic learning to real-life problem solving. Implementing a "whole brain" approach, a goal is to provide opportunities for students to explore academic or career interests through service learning or career sampling. Comments by students and community sponsors are included. (LMI)

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THE ACADEMIC INTERNSHIP PROGRAM: AN OPTIONAL AID FOR MAXIMIZING THE LEARNING OF HIGH SCHOOL STUDENTS IN THE CHARLOTTE-MECKLENBURG SCHOOL SYSTEM

By Evelyn J. Blackwell

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By Evelyn J. Blackwell

The Academic Internship Program (AIP) is an experiential education program which serves as a supplement to formal education in the Charlotte-Mecklenburg School System (CMS). It embraces recent educational philosophies and trends, and serves as an optional aid to developing thinking and learning on the part of students. Founded under the leadership of Joyce McSpadden at West Charlotte High School, the AIP has served as a model for many other experiential education programs that exist in high schools throughout the United States.

W. Hal Knight in Voice states that experiential education involves students in direct experiences. Such learning may include laboratories, field work, cooperative education, internships, cross cultural experiences, service learning and others. In the AIP with one-on-one and group experiences, the Charlotte-Mecklenburg School System provides opportunities for high school students to explore areas of academic or career interests through service learning or career sampling.

One-on-one internships occur when a student supported by a teacher sponsor, a community sponsor, ard a coordinating teacher works in a business or organization shadowing a professional or skilled employer for 45 to 180 hours. During the time when the student is working one or two afternoons a week, he/she observes, assists, discusses, tries things out, and in the words of W. Hal Knight becomes "immersed in it through direct, active contact." Group internships exist when fifteen or more students meet simultaneously and on a weekly basis to learn about a particular career through seminars. These seminars are conducted by lawyers, doctors of medicine, journalists or radio and television personnel depending on the career in question. In addition to seminars, students complete written and oral assignments.

Students earn elective credit and a grade for their participation as interns. They gain valuable knowledge about the career in question and/or the world of work. This knowledge includes information concerning aptitudes and interests needed, career opportunities, and competencies and understandings necessary for one who wishes to become skilled in the profession being explored. They also get a rudimentary exposure to the formal relationships, policies, roles, and management hierachies necessary in a business environment.

Having served for the past eight years as one of the coordinating teachers in the AIP, I have become increasingly aware that this program is one which embraces many of the recent educational trends of traditional education. While I profess to make no step-by-step documentation and comparison of pedagogy in the two educational methodologies, I have observed events of the AIP -- preparations, procedures, and results -- that coincide with those of traditional education.

Employing different terminology, McCarthy, Hunter, Dunn and others seem to concur that the most recent philosophies of education state that teachers must be in tune with learning styles of their students. More recently, Costa et al have added that we must teach students definite thinking procedures in order to develop high-level thinking. This, they declare, is different from the philosophies of a decade ago which emphasized "individual differences" and "teaching students to think." Apparently, earlier focuses were on the use of

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any methods necessary to teach prescribed subject matter content in order to direct all students to the same or similar goals. This meant not providing an opportunity for adaptation to other learning styles and thereby developing brain functioning in the right and left mode, but helping students to arrive at set goals through limited methods of learning. Presently, individuals and organizations offer methods of instruction that not only adhere to the learning style of each individual but also provide opportunities for each to adjust to other styles of learning so as to become more profound thinkers as the left and right brain develop their capacities. Here emphases are on outcomes that prepare students for real-life situations and life-long learning. One new approach referred to as metacognition is described by Arthur L. Costa as "being conscious of our own thinking and problem solving..." He says a course of action should be planned before a task is begun with self monitoring while the plan is being executed, with adjustments made where needed, and an evaluation upon completion of the plan.

Teaching to learning styles and metacognitive approaches to learning are employed by CMS teachers. Through "Effective Teaching" inservice training many teachers in the Charlotte-Mecklenburg School System have become skilled at adapting lesson plans to meet the needs of the various students. They employ the six steps to effective teaching taught by Madelyn Hunter. They can move students through the realms of left and right brain activities outlined by Bernice McCarthy. They can, as Rita Dunn suggests, manipulate factors of the environment and manage and organize in such a way that effective teaching/learning occurs in a given class for each student. To do this teachers may develop instructional packages to individualize teaching. They include activities that are visual, auditory, tactual and kinesthetic. They ask appropriate starter questions so as to solicit participation. They use familiar content and ask questions to have students verify, clarify, and make inferences in relationship to earlier responses -- employing strategies that according to Carolyn Hughes et al lead to the development of thinking on the part of students. But, as John Goodlad explains in A Place Called School, all courses -- English, Mathematics, Social Studies, Physical Education and Art-- are treated with academic emphasis. Each instructional method, he states, concludes with written or oral tests designed to measure and control. Therefore, any emphasis on learning for aesthetics, social responsibility, and self development tends to lose its impact. Mastery of the three R's has long been the necessary focus and purpose of schools. The greater purpose of educating as is indicative of recent philosophy is preparing for real-life situations and life-long learning.

Exposed to real-life situations in the world of work through the AIP, students are given the opportunity to begin to apply what they have learned in schools. In support of this point, Joan Macala in "Toward Excellence in Education" states that realistic problem solving is engaged in with feedback that is uncontrived and immediate and the consequences put what was learned in school to the real test.

Prior to placing students, internship coordinating teachers always have counseling sessions with potential interns to discuss interests, goals, and available internship sites. Coordinators also meet with community sponsors in an effort to match students with the right community sponsors. When the student, community sponsor, and coordinating teacher meet together for the first meeting -- called the placement meeting-- goals and objectives are again reviewed,

assignments are fully explained, and evaluative procedures are discussed. Assignments are spelled out in instructional packages or in handbooks which are prepared in advance by the coordinators. These assignments are general and allow for individuality and input from students. Other local assignments may be structured and preplanned by the community sponsor, or they may develop during a daily work procedure. A student doing a one-on-one internship keeps a daily log of his/her activities with the use and definitions of terminology relevant to the jargon of the career being explored. The student many also do a project of his/her choice to extend learning.

A student participating in a group internship not only hears the lectures by professionals but she/he also interacts with the professionals by asking and answering questions. She/he may engage in certain other assignments -- oral and written -- that aid his/her knowledge of t he career. In the Group Law Internship, students observe court in session and do write ups or summaries about their impressions. They are encouraged to employ judicial terminology when they write and when they role play hypothetical court cases that are set up by lawyers. The Group Journalism Internship provides for the shadowing of reporters by students. The student may do a written coverage of an event along with a reporter. The directions and procedures for these assignments are in instructional packages, and the students get feedback from their supervisors as they work. Moreover, the students evaluate their own participation with pre-developed evaluative instruments and with written and oral statements of evaluation. The following are some examples of students' participation in internships and statements made by the student and the community sponsors.

> A Medical Intern in Plastic Surgery: Observed office practice of plastic surgery -- mainly seeing pre-op and post-op patients; attended many of the grand round didactic lectures at Mercy Hospital; observed surgery in the emergency room and in the operating room which included skin grafts, removal of warts, reconstruction of the jaw, removal of varicose veins, cysts and mole removal. Also, attended a seminar about Systematic Lupus Erythematosus (SLE) -- a disease wherein there is a lack of antibodies to fight off harmful bacteria, and wrote a research paper on some uses of the laser in medicine.
>
> Student: "I personally feel the internship program is set up quite well. It is totally up to the student to show an interest and participate in order to get the most out of it... Mine has been a great experience."
>
> Community Sponsor: "Scott is an intelligent, enthusiastic student and is honestly interested in his internship in plastic and reconstructive surgery. He has written a report and performed above and beyond what was expected of him, as one can see from the number of hours he served." (The student served more than 180 hours)
>
> Another Student (Plastic Surgery): "Today I saw a man with skin cancer, three ladies with breast enlargements, a lady who had been in a car accident..., a 92 year old woman with a skin rash.

After the third patient. I fainted!... pretty embarrassing! I have decided not to go into plastic surgery. I can't stay on my feet long enough to see what's going on (ha!)". The experience, "It was excellent because I really learned that medicine is a lot harder and tedious than I had expected."

A Law Intern: Ran errands for the lawyers, discussed different law issues, researched transcripts (comparison and contrasts), summarized depositions, learned to use various machines, interviewed three lawyers, and observed court in session.

Student: "The business was well organized ... This internship helped me a great deal about making a decision for my future. I realize now what a tough job it is to be a lawyer... now I am more clear on my options."

Community Sponsor: "Valerie did a great job. However, she needs to learn to pay closer attention to detail in her written and oral communication."

A Teaching Intern of English/Writing): Taught elements of the short story, characters, plot, setting. Helped to teach students to write short stories and express their creative ideas on paper. Observed the teacher at work with the students -- writing, discussing, analyzing.

Student: "I'm learning a lot about instructing students and gaining the ability to critique other peoples' writing... I gave them time in class to write on their own autobiographies. They were responsive. I explained how to do the end of their stories and let them ask questions... I returned their rough drafts and explained to them how to do a final draft."

Community Sponsor (Teacher): Although Devin is only a year older than this class, he has gained their respect and inspired a majority of the class to write excellent short stories. Much of their writing has been to a prompt; Devin has stimulated their creativity on this project. The students are proud of their work and I am proud of Devin's accomplishments with them."

A Photojournalist Intern: Was involved in shooting pictures for a daily newspaper, had lighting experiences, learned how to do mug shots, learned printing procedures, had her by line put in the newspaper.

Student: "I love their advanced equipment! I think this internship is going to be fun and educational. I observed the types of assignments that professional photographers do. I watched them under pressure and I watched them do layouts and prepare for up-coming events, like the NCAA TOURNAMENT AND THE DAYTONA 500. When I went out on a "man hunt" with [a

photographer], I was able to experience what the job was really like, and I even got a front page by-line too... It was an excellent experience but I know I will not be going into newspaper photography because there is too much pressure."

Community Sponsor: "Cathy is a very hard worker and works well without supervision."

A Broadcast Journalist Intern: Followed news crews on story assignments, observed in-studio production of 6:00 o'clock news, operated field record unit for Sky 3 news helicopter, assisted reporters on live shots, learned how to edit the written interviews, was shown how to read the anchor person's script from the computer, wrote a news release which was aired - concerning the screening of journalists in Chapel Hill who are competing to be the first journalists in space.

Student: "[This TV station] has given me the opportunity to work with them as an intern in Broadcast Communication. Being an intern offered me knowledge and experience that I could not get by just book reading and lectures alone. I had first hand experience in reporting."

Community Sponsor: "Melinda has shown a unique interest in our product, and a genuine desire to learn. She seems headed toward a promising career in broadcasting."

An Electrical Engineering Intern: Designed a pump control system using logic and converted the design to a program controller using software; discussed various notations, formulas and how they relate to engineering; studied the circuit board and went over the symbols in the diagram to learn how they relate to the circuit; observed the sponsor's workload and saw some things engineers do on a daily basis; visited a near-by steam plant, a hydro-electric plant, an environment lab, and a training center; worked on the logic diagram to develop and write a computer program for Struthers and Dunn VIP Micro-Processor.

Student: "My goals are simply to learn about and participate in engineering and gain more realistic ideas about engineering as a career. With my sponsor I observed many aspects of electrical engineering. I was able to talk to him about his daily work and go through his papers, drawings, etc. .... I was able to see many of the new technical advances in engineering including computer uses and how they are changing engineering. ...my internship was both very informative and enjoyable. The things I learned have given me terrific insight on my future in engineering . The people were helpful and friendly and they provided experiences not available in school."

Community Sponsor: "Student has a strong desire to learn and asks the right questions."

One community sponsor recently stated that high school students whom he has interviewed who had internships do a better job as interviewees than many college students who have completed their training. College students, he said, who have not had internships seem to think that what they have learned in books is easily applied to the job situation. Internships give students the opportunity to witness problem situations that on the job real-life workers get into. Thus, the interns begin to know how to avoid these situations in interviews and on the job if they are hired.

Another case in point follows. A student in an accounting class may have his paper returned after a test to learn that his careless mistakes in mathematic computations resulted in incorrect answers and a grade indicating that he passed or failed. The intent is that he will make application as to the results if he were employed as an accountant, but his wrong answers will have greated impact when that student observes the potential financial loss to a company as an intern.

Stating that students make better application of academic learning when they get involved in career exploration and/or service volunteerism, Ernest Boyer in High School makes the point that high schools need to draw on resources beyond the campus. John Goodlad in A Place Called School also advocates the joint efforts of school and community "to effectively link the worlds of school and work," and W. Hall Knight in Voice states that when the learner uses concrete experiences to understand abstract concepts, learning is more effective. These authors also say both traditional classroom instruction and experiential activities are needed if learning is to be complete. I concur!

According to the AIP philosophy, the ultimate goals of education are to help students develop a "whole brain" and to put it to use for self development, personal aesthetics and service to society. This philosophy is based on the theory of hemisphericity which outlines a two-part brain system structured to process information from a global or sequential perspective. Bernice McCarthy assigns four kinds of learners to this two-part brain system and suggests methods and strategies with sample lesson plans to teach each learner. While there are no definite lesson plans that I have knowledge of to attest to left and right brain activities when students are engaging in internship experiences, one can easily see that by the nature of most internships, students move into right and left brain thinking. For example, they sense, feel, watch, discuss, and intergrate personal experiences while being involved in internships. They thereby become the Innovative Right Brain Learner that Mrs. McCarthy describes. They may want to know why they will or will not pursue a given career and they have reasons of their own for wanting to know. Each intern is or becomes the Analytic Right Brain Learner as he/she watches and thinks through concepts. He/she wants to know the facts. The teacher teaches the "What" about the career in question through performance and explanation.

Each intern is or becomes the Common Sense Left Brain Learner as he/she tries things out for himself. In doing this he arrives at answers to questions by exploring, manipulating, and experiencing. Each intern may become the Dynamic Left Brain Learner when he develops what he/she has learned into something more. He/she may make and design various projects. (Bernice McCarthy. The 4 Mat System)

All the work done by coordinating teachers -- planning, placing, and working with each student -- is analogous to individualizing instruction in traditional schools. A multisensory approach to learning is provided for by the AIP. The internship examples given above attest to this fact. In addition, teaching to learning styles is a natural phenomenon during an intern's exposure to a career. When students learn from the direct teaching of subject matter in the classroom and then engage in experiential learning as provided by the AIP, they get involved in thinking activities of a higher order. Much of what they learn depends on what they want to know and how well they can put to use what they have learned in a traditional setting.

Having monitored more than 1,000 high school students through internship experiences, I have witnessed the joint efforts of school and community. Benefits derived include scholarships, career narrowing, paid employment, personal references, application of academic learnings, and better thinking adults committed to doing the best job possible. What better test can we give than to have students put their knowledge on trial in a real-life situation where without formal tests they can know better than anyone else to what extent they have passed or failed? As stated in the AIP philosophy, "what better way can we assure our society of persons dedicated to the improvement of technology, for example, than to see to it that those pursuing it have experienced it?"

When I run across or hear about former high school students who are now successful in career areas which they explored as interns, or when students tell me that they are glad for the experience but decided to pursue another career, I have greater appreciation for the importance of experiential education in a community setting as an aid to high school learning. Some examples follow:

> Recently, upon visiting my dentist, Dr. Paul Homoly, I was pleasantly surprised when Beth Flocco, a former South Mecklenburg High School student worked on my teeth. She had done an internship in dentistry a few years ago, and she is now a certified dental hygienist. If you visit the School Workers Federal Credit Union in Charlotte, you will encounter Althea Garris Stewart at work as a loan and collections clerk. She is a former Garinger High School student who did a Business/Accounting Internship at that credit union. Nancy Pappamihiel participated in the Group Law Internship while she was a senior at Independence High School. Presently she has a college degree in International Business and hopes soon to be employed. She says that the internship helped her to learn a lot about the judicial system and was instrumental in helping her in her career choice. Via telephone, Brian Bingeheimer, formally of South Mecklenburg High School, told me that after completing his internship at Ivey's Data Center - a Computer Operations Internship - he was hired as a mail clerk there. Since that time he has received a couple of promotions and now serves as the systems' programmer for Ivey's of Charlotte. While seeking a masters' degree in Computer Science, Arun Chopra works as an associate systems analyst for Unisys Health Care. As a Garinger High School Intern, he worked under the supervision of

Mr. John Smith in Computer Programming at the Charlotte-Mecklenburg Schools Education Center.

After the drills, questions, tests and experiences in traditional schools that develop the cognitive process, what is next? Do we provide for an extension of cognition in an experiential setting, or do we leave the students to make application of what they have learned through a life of trial and error only? We can continue to guide them into dynamic learning during their final high school years by providing opportunities for them to sample a "slice of life". The Charlotte-Mecklenburg School System's Academic Internship Program offers this as an option to help maximize the learning of high school students.

February 9, 1987

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